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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,079	07/30/2003	Kenneth R. Erikson	D4601-3CIP	8469

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MAINE & ASMUS
100 MAIN STREET
P O BOX 3445
NASHUA, NH 03061-3445

EXAMINER

LOBO, IAN J

ART UNIT

PAPER NUMBER

3662

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,079

Applicant(s)

ERIKSON, KENNETH R.

Examiner

Ian J. Lobo

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-30-03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Independent claims 1, 11 and 13 each include the limitation of an application of an acoustic pulse to an underwater target area volume "so as to cause displacement of materials included in the target area volume". The specification, on page 5, paragraph 0023 states "*in particular, the transducer 15 is commanded to apply a high intensity, low frequency tone burst or single acoustical pulse to the underwater floor 9 that causes elastic floor material to move a detectable amount but has little or no effect on objects of relatively higher elasticity or density*". However, a review of the specification does not detail the specific "high intensity, low frequency tone burst or single acoustical pulse that would enable or actually cause displacement of materials or detectable movement of materials. Specifically, the specification is non-enabling in the specific frequencies, types of pulses, etc. that would render a material or object to "move a detectable amount" or be "displaced". The test of enablement is whether the person having ordinary skill in the art can make or use the claimed invention from the disclosure in the specification coupled with information known in the art without undue experimentation. The disclosure in the specification lacks any information on the specific acoustic pulses

or tone bursts that would cause detectable movement, underwater, of materials or objects and further lacks any disclosure on how the specific pulses would interact with or provide movement to different objects or materials having different sizes, densities, etc. The literature and current patents do not show or disclose any information in the art that relates to such interaction of acoustic pulses and effective or measureable movement of objects or materials, and more specifically the types of objects or materials that would provide measureable movement based upon the specific acoustic pulses.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

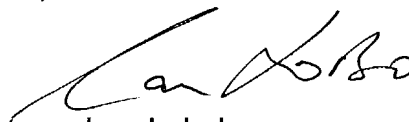
3. Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,700,833. Although the conflicting claims are not identical, they are not patentably distinct from each other because the independent claims 1, 11 and 13 the instant application and claims 1, 20 and 13, respectively, of the '833 patent each include the basic limitations of a system and method for detecting underwater buried objects including an acoustical underwater camera, an acoustic transducer and a controller adapted to coordinate the operation of the camera and transducer. The distinction between the instant independent claims and those of the '833 patent lies in the aforementioned limitation that the acoustic pulse applied by the acoustic transducer causes "*displacement of materials included in the target area volume*". The claims of the '833 patent merely state that the acoustic transducer applies an acoustic pulse to the seafloor within the field of view. Taking into account the prior rejection of the instant claims under 35 USC 112, first paragraph, and giving weight to the concept that any acoustic pulse with sufficient intensity may displace materials in a specified underwater area, it would appear that the acoustic pulses of the instant claims that call for displacement of materials in a target area volume are a matter of design choice of frequency, intensity etc. that one of ordinary skill in the art would find obvious.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian J. Lobo whose telephone number is (703) 306-4161. The examiner can normally be reached on Monday - Friday, 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on (703) 306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ian J. Lobo

Primary Examiner

Art Unit 3662